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| **Study program** Undergraduate Studies |
| **Course title** Mineralogy with crystallography (H121C) |
| **Name of lecturer/lecturers**  Nenad Krstić |
| **Type of course** Elective |
| **Number of ECTS allocated 4** |
| **Course objectives** Getting to know the basics of mineralogy, geology and crystallography, systematization of minerals and crystal. Understanding the physical and chemical process that have occurred in the geological history of the Earth. Knowledge of properties and applications of minerals from different classes |
| **Course outcomes**. After successfully completing this course, the student is able to:• understands the basic geological concepts and processes that took place in the geological history of the Earth during which different classes of minerals were formed• apply the principles and acquired elementary knowledge in the field of crystallography. |
| **SYLLABUS***Lectures* Introductory lecture: basic concepts, connection with other scientific disciplines. Basic terms about crystals and crystallography. Systematization of crystals based on the structure of the elementary cell. Physical properties of minerals/crystals. Mineral chemistry. Structure of the Earth and the processes that lead to its formation minerals. Systematics of minerals: elements, halides, oxides, hydroxides, sulfides. Salts with oxygen, sulfates, carbonates, phosphates, borates, vanadates, chromates, tungstates. silicate minerals, phyllosilicates, tectosilicates, inosilicates, sorosilicates, neosilicates, radioactive minerals. Basic terms in petrography, rocks, their formation in igneous, sedimentary and metamorphic the middle. Mineral raw materials.*Laboratory work* Minerals, crystals. Crystal systems. Physical and chemical properties of minerals. Crystal formation. Systematization of minerals. Qualitative tests. Mineral raw materials of Serbia |
| **References** 1. R. S. Nikolić, N. S. Krstić, Elementi mineralogije za studente hemije – Osnovi, vežbe i drugioblici nastave. PMF Niš, 2010.2. V. Jovanović, D. Srećković-Batoćanin, Osnovi geologije, Zavod za udžbenike, Beograd, 2006.3. P. Ristić, F. Tubelja, Mineralogija, Sarajevo, 1970. |
| **Active teaching classes** | **Lectures 30** | **Laboratory work 15** |
| **Teaching mode** Lectures, colloquiums, seminars, consultations |
| **ASSESSMENT METHODS AND CRITERIA (Max 100 points)** |
| **Pre exam duties** | **Points** | **Final exam**  | **Points** |
| Activity during lectures | 5 | Written examination | / |
| Practical teaching | 5 | Oral examination | 30 |
| Colloquiums | 60 |  |  |